

**Notice of Allowability**

Application No.

10/691,943

Applicant(s)

DELALU ET AL.

Examiner

JOHN PAK

Art Unit

1616

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's amendments and remarks of 1/4/2006.
2. ☒ The allowed claim(s) is/are 1-8 and 11 [renumbered as 1-9].
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
JOHN PAK  
PRIMARY EXAMINER  
GROUP 1600

Claims 1-8 and 10 are pending in this application.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Muserlian on 1/30/2006.

#### **Amendments to the Claims**

Cancel claim 10 and substitute it with the following new claim 11.

Claim 11 (New). Process according to Claim 1, characterized in that the concentration of sodium hypochlorite in the reaction medium is between 0.5 mol/l and 1.5 mol/l.

#### **Amendment to the Specification**

Specification page 2, after the last line of the page, insert the following new paragraph ----

The present invention also relates to a process for the synthesis of monochloramine by reaction of an ammonium chloride solution with a sodium hypochlorite solution at -15° to 0°C, characterized in that the sodium chlorite solution is basified beforehand with an inorganic base and in that the ratio of the concentration of

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total ammonia in the reaction medium to the concentration of sodium hypochlorite in the reaction medium is between 1 and 1.5.

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The following observations are made here for the clarity of the record.

(1) Applicant defines "concentration of total ammonia" in the specification as including the concentrations of both ammonia and ammonium chloride. See specification page 1, lines 20-21. The present claims are interpreted in accordance with applicant's definition.

Descriptive support for the presently claimed ratio of the concentration of total ammonia to the concentration of sodium hypochlorite is found throughout the originally filed disclosure. The 1 to 1.5 ratio with respect to ammonium chloride and sodium hypochlorite is disclosed (original claim 1), and the concept of total ammonia is applied even when only ammonium chloride is added (Example 1, see in particular page 7, lines 1-2; Example 2, see in particular lines 28-29). In both inventive Examples 1 and 2, the experimental ratio of the concentration of total ammonia in the reaction medium to the concentration of sodium hypochlorite in the reaction medium is 1.1 (page 6, line 24; page 7, line 23). Therefore, it is clearly conveyed to the skilled artisan that applicant's invention discloses the ratio of the concentration of total ammonia in the reaction

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medium to the concentration of sodium hypochlorite in the reaction medium being between 1 and 1.5.

(2) In claim 2, the phrase, "the ratio of the concentration of ammonium chloride" finds antecedent basis from claim 1 for several reasons. First, the process of claim 1 is recited as a process for the synthesis of monochloramine by reaction of an ammonium chloride solution with sodium chlorite. Hence, ammonium chloride must be used in the process of claim 1 and it must inherently have a concentration. Second, the "concentration of total ammonia" in claim 1 means that it must include concentrations of ammonia and ammonium chloride. Therefore, the language of claim 2 finds sufficient antecedent basis from claim 1.

(3) Claim 10 was canceled and rewritten as new claim 11 for clerical purposes. Claim 10 was amended with an inadvertent underline in "1.5". Its cancellation will remove any issues as to amendment error and its being rewritten as new claim 11 preserves the exact language of applicant's claim coverage.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

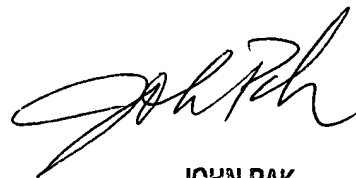
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Gary Kunz, can be reached on **(571)272-0887**.

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The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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